



Friday, February 19, 2016

Emily Lloyd
Commissioner

John G. Petito, P.E.
*Acting
Deputy Commissioner*

**Bureau of Wastewater
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Anthony Petruska
Water Enforcement Branch
United States Environmental Protection
Agency, Region 7
11201 Renner Boulevard
Lenexa, KS 66219

**Re: 2015 Annual Monitoring, Record Keeping and Reporting
Requirements of the Federal Standards for the Use or Disposal of
Sewage Sludge, 40 CFR Part 503**

Dear Mr. Petruska:

Pursuant to Title 40 Code of Federal Regulations, Part 503 Federal Standards for the Use or Disposal of Sewage Sludge (40 CFR Part 503), the New York City Department of Environmental Protection (DEP) is submitting herewith, one annual report for each of the fourteen (14) Publicly Owned Treatment Works (POTWs) operated under the direction of DEP.

As a generator of sewage sludge, DEP has provided the following requisite information for the reporting period of January 1, 2015 through December 31, 2015:

- a. Amount of sewage sludge generated in metric tons, expressed as a dry weight;
- b. Use or disposal practices employed;
- c. Amount of sewage sludge that went to each use or disposal practice;
- d. Name and address of the preparer or land applier who received the sewage sludge;
- e. Name and address of the land applier and owner/operator of the disposal site;
- f. Analytical results of the pollutant concentrations in the sewage sludge, reported as milligrams per kilogram (expressed as a dry weight). Also included are the prescribed analytical methods, frequency of sewage sludge sampling/monitoring and the types of samples collected;
- g. A listing of all relevant environmental (Federal, State or Local) permits

and/or construction approvals received and/or applied for.

If you have any questions, comments or require additional information, please contact Mr. Allen Deur, P.E., Chief, Division of Operations Support, Bureau of Wastewater Treatment, at (718) 595-4295 or adeur@dep.nyc.gov.

Sincerely,



John Petito, P.E.
Acting Deputy Commissioner

Attachment

c: Diane Hammerman, Director, Regulatory Compliance & Administration, BWT
Allen Deur, Chief, Division of Operations Support, BWT
Theresa Tam, Chief, SPDES Compliance Section, BWT

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



February 2016

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

INTRODUCTION

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
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February 2016

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I. BACKGROUND AND OVERVIEW

The New York City Department of Environmental Protection (DEP) owns and operates fourteen Wastewater Treatment Plants (WWTPs) and eight sludge dewatering facilities located throughout the five boroughs of New York City (NYC). For this reporting period, the Jamaica and Tallman Island Dewatering Facilities were shut down. The dewatering facilities are equipped with centrifuges that remove a portion of the water from the liquid sludge to reduce its volume, thereby facilitating a more efficient and cost effective land-based Sludge/Biosolids Management Program. Dewatered sludge, or biosolids, is a nutrient rich, semi-solid material that is generated during the wastewater treatment process and can be beneficially applied to the land as a soil conditioner and fertilizing agent.

DEP contracts out the removal of its biosolids. All land application contractors have applied additional treatment to NYC biosolids regardless if it met the requirements of Process to Significantly Remove Pathogens (PSRP). During calendar year 2015 (CY2015) all biosolids were provided to the following contractors:

Contractor	Contract No.	End use
Tully Environmental	1419-TDR	Landfill
Environmental Protection & Improvement Company (EPIC)	1425-BIO	Landfill
Action Carting	1280-BIO	Landfill
Action Carting 2	1333-BIO	Landfill / Beneficial Use
Environmental Protection & Improvement Company (EPIC)	1369-BIO	Landfill / Beneficial Use
We Care Organics	1236-BIO	Mine Reclamation
We Care Organics	1308-BIO	Landfill/Beneficial Use

D

Details on the biosolids end use by the seven contractors used during CY2015 are:

1. Environmental Protection & Improvement Company (EPIC) under Contract 1425-BIO

Environmental Protection & Improvement Company (EPIC) performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including: Tunnel Hill Partner in New Lexington, Ohio, Waste Industries in Mauk, Georgia, Envirosolutions (ESI) in Coalton, Kentucky, and GROWS in North/Tullytown Landfill in Morrisville, Pennsylvania.

2. Tully Environmental under Contract 1419-TDR

Tully Environmental performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including: Carbone Limestone Landfill in Lowellville, Ohio, Greentree Landfill in Kersey, Pennsylvania, and the Ontario County Landfill in Stanley, New York.

3. Action Carting under Contract 1280-BIO

Action Carting performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids in the following landfills: Envirosolutions (ESI) in Coalton, Kentucky, GROWS in North/Tullytown Landfill in Morrisville, Pennsylvania, Greentree (PA) and Grand Central, Pen Argyl (PA).

This contract ended in March 2015

4. Action Carting under Contract 1333-BIO

Action Carting performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. This is a landfill/beneficial use contract. The contractor disposed of the biosolids in the following landfills: Envirosolutions (ESI) in Coalton, Kentucky, GROWS in North/Tullytown Landfill in Morrisville, Pennsylvania, Greentree (PA) and Grand Central, Pen Argyl (PA).

5. Environmental Protection & Improvement Company (EPIC) under Contract 1369-BIO

Environmental Protection & Improvement Company (EPIC) performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including: Tunnel Hill Partner in New Lexington, Ohio, Waste Industries in Mauk, Georgia, and GROWS in North/Tullytown Landfill in Morrisville, Pennsylvania.

6. WeCare Organics under Contract 1236-BIO

WeCare Organics, LLC (WeCare) transported and processed the NYC biosolids via Alkaline Stabilization process at the Blackwood

(Blackwood) Farms facility in Tremont, Pennsylvania and other sites.

Blackwood is a facility which has a fully permitted site by the Pennsylvania Department of Environmental Protection (PADEP) to process Class A biosolids via the Kyler Environmental Services, LLC. Kyler is wholly owned by WeCare and the permit is still under the Kyler name.

Lime and alkaline admixtures were added to the biosolids to achieve pH, temperature, and final total solids requirements. The addition of coal fly ash or wood ash helps adjust the final total solids concentration, helps control odors, and improves final product characteristics such as color and texture. Due to the lime addition, the resultant product is used primarily for mine reclamation. A moveable soil shredder is used to further process the material to produce a marketable product if needed.

WeCare staff is responsible for transporting and administering the on-site utilized end-products. Transport of incoming waste streams and remaining outgoing end-product will mainly be performed by third party haulers. As the process further develops, WeCare may take part in some of this hauling as well.

This contract has been on hold since June 2014 due to permitting issues.

7. WeCare Organics under Contract 1308-BIO

WeCare Organics, LLC (WeCare) performed transportation and disposal services for biosolids generated at the NYC Dewatering Facilities. The contractor disposed of the biosolids at landfills including: Tullytown, Pennsylvania, Grows North, Pennsylvania, and Grand Central Sanitary Landfill in Pennsylvania. This contract is for beneficial use, landfill or a combination of both. In CY2015, the biosolids handled under this contract were only sent to landfills.

II. SLUDGE HANDLING EQUIPMENT

A. 26th Ward Dewatering Facility

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft³ each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ four (4) thickeners; gravity type, circular - 70' diameter each → two (2) digesters; fixed cover type (primary) - 86' diameter, 191,500 ft³ each
- ▶ two (2) digesters; fixed cover type (primary or secondary) - 86' diameter, 191,500 ft³ or 186,000 ft³ each

Regarding the above description: 26W has two primary and two primary/secondary digesters. Current operations is to use all 4 digesters as primary digesters. Currently there is a contract at 26th Ward which is replacing the roof of all the digesters. The contract started in April of 2015. Digester No. 2 has been out of service since then. The new domes are going to be the fixed cover type made of metal. The volume of the swing digester is determined by its use. Therefore, if 26W is using it as a primary digester its volume is the same as the other two primaries (191,500 cubic feet each). If a tank is used as a secondary its volume is 186,000 cubic feet. However, these volumes are listed in the O&M but 26W uses more conservative values to calculate the detention time.

- ▶ four (4) heat exchangers
- ▶ five (5) mixing units; gas compressor type mixers (1 per digester) (3 nonfunctional)
- ▶ three (3) storage tanks; 86' diameter, 188,000 ft³ each
 - Tank 1S is used for house sludge and PSRP boat sludge (RK)
 - Tank 2S is used for JA pump over sludge and non-PSRP boat sludges
 - Tank 3S is used for CI pump over sludge only

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at 26th Ward that include; a docking facility which can accommodate each of the five (5) liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and three (3) liquid sludge storage tanks.

Additionally, there are two force mains that are used to pump liquid sludge from Jamaica

and Coney Island to 26 Ward.

B. Bowery Bay Dewatering Facility

- ▶ four (4) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ two (2) storage bins - working capacity 4,325 ft³ each
- ▶ one (1) truck loading bays; single entry type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ eight (8) thickeners; gravity type, circular - 70' diameter, 48,760 ft³ each
- ▶ four (4) digesters; fixed cover type (primary) - 81' diameter, 195,710 ft³ each (Note: one digester, No. 5, remains out of service in 2011)
- ▶ four (4) heat exchangers; (1 per digester) - 2.6 Mbtu/hr
- ▶ six (6) storage tanks, two with fixed cover, four open tanks - 4 @ 81' diameter, 1 @ 70' diameter, 1 @ 64.75' diameter (Note: one storage tank (No. 3) is being used as a primary digester and two storage tanks (Nos. 9 and 10) are being used for centrate storage in 2011, No. 2 storage tank is converted to be a gas holder)

C. Hunts Point Dewatering Facility

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft³ each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ twelve (12) thickeners; gravity type, circular - 65' diameter, 33,300 ft³ each (6 utilized)
- ▶ four (4) digesters; fixed cover type (primary) - 118' diameter, 369,000 ft³ each (2 utilized)
- ▶ four (4) heat exchangers
- ▶ five (5) storage tanks; varying capacities 115,000 to 373,000 ft³ each

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Hunts Point that include; a docking facility which can accommodate each of the three (3) liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and two (2) liquid sludge storage tanks.

D. Jamaica Dewatering Facility

For this reporting period, the Jamaica Dewatering Facility was shut down.

E. Oakwood Beach Dewatering Facility

- ▶ four (4) centrifuges; solid bowl type - rated @ 300 gpm
- ▶ two (2) storage bins - working capacity 4,325 ft³ each
- ▶ one (1) truck loading bays; pass through type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ two (2) thickeners; gravity type, circular - 70' diameter, 47,340 ft³ each
- ▶ three (3) digesters; fixed cover type (primary) - 60' x 60' square, 114,400 ft³ each
- ▶ four (4) heat exchangers; external jacket type (1 per digester & 1 on standby) - 1.8 Mbtu/hr
- ▶ six (6) mixing pumps - (1 per primary digester, three on standby)
- ▶ three (3) storage tanks; - 2 @ 50' diameter, 53,800 ft³ each; 1 @ 75' diameter, 110,390 ft³

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Oakwood Beach that include a force main that are used to pump liquid sludge from Port Richmond to Oakwood Beach.

F. Red Hook Dewatering Facility

- ▶ two (2) centrifuges; solid bowl type - rated @ 120 gpm
- ▶ two (2) storage bins - working capacity 1,750 ft³ each
- ▶ one (1) truck loading bays; pass through type
- ▶ one (1) truck loading scale - 100 ton capacity each
- ▶ four (4) truck loading slide gates - 3' L x 2' W

- ▶ one (1) scale room; automated
- ▶ four (4) thickeners; gravity type, circular - 60' diameter each
- ▶ three (3) digesters; fixed cover type (primary) - 60' diameter, 90,000 ft³ each
- ▶ three (3) digesters; fixed cover type (secondary) - 60' diameter, 90,000 ft³ each
- ▶ thirty-six (36) sludge heaters; (6 per digester) - 320,000 btu/hr heating capacity for mesophilic operation
- ▶ twelve (12) mixing pumps; (2 per digester) - 50 hp, 4,900 gpm each
- ▶ two (2) storage tanks - 70' diameter 125,000 ft³ each

In addition to the primary equipment listed above the City operates various ancillary facilities and equipment at Red Hook that include; a docking facility which can accommodate each of the liquid sludge vessels used by the City to transport liquid sludge from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and liquid sludge storage tanks.

G. Tallman Island Dewatering Facility (Currently not in use)

For this reporting period, the Tallman Island Dewatering Facility was shut down.

H. Wards Island Dewatering Facility

- ▶ thirteen (13) centrifuges; solid bowl type - rated @ 240 gpm
- ▶ ten (10) storage bins - working capacity 2,570 ft³ each
- ▶ two (2) truck loading bays; pass through type
- ▶ two (2) truck loading scales (1 per bay) - 100 ton capacity each
- ▶ twenty (20) truck loading slide gates (10 per bay) - 3' L x 2' W
- ▶ one (1) scale room; automated
- ▶ twelve (12) thickeners; gravity type, circular - 70' diameter, 47,300 ft³ each
- ▶ six (6) digesters; fixed cover type (primary) - 88' diameter, 253,000 ft³ each
- ▶ two (2) digesters; fixed cover type (secondary) - 88' diameter, 253,000 ft³ each
- ▶ fourteen (14) heat exchangers; water process type “E” - 2.5Mbtu/hr (2 per primary digester, 1 per secondary digester)
- ▶ two (2) storage tanks - 81' diameter, 259,600 ft³ each

In addition to the primary equipment listed above, the City operates various ancillary facilities and equipment at Wards Island that include; a docking facility which can accommodate each of the liquid sludge vessels used by the City to transport liquid sludge

from the “guest” WWTPs (without dewatering facilities) to the “host” WWTPs (with dewatering facilities) and liquid sludge storage tanks.

III. LIQUID SLUDGE AND BIOSOLIDS PRODUCTION AND ALLOCATIONS

Table 3 of Appendix A contains the monthly liquid sludge production of each NYC Wastewater Treatment Plant in dry metric tons for this reporting period (January 1, 2015–December 31, 2015)

Table 4A presents the monthly liquid sludge allocation (at 14 wastewater treatment plants) in dry metric tons for the reporting period and Table 4B presents the monthly biosolids allocation (at six dewatering facilities which are located at six of the 14 wastewater treatment plants – 26th Ward, Bowery Bay, Hunts Points, Oakwood Beach, Red Hook, and Wards Island) in dry metric tons for the reporting period. Total percent solids of the biosolids were measured daily at each dewatering facility from grab samples of the material.

For the figures on Table 3 and 4A, there may be a larger standard deviation of the liquid sludge production in dry metric tons (compare to the figures in Table 4B) due to the conversion process. The production rates of liquid sludge are very large figures; when multiplied by the total solid percentage to convert to the dry metric ton, the result may have a large difference. Therefore, the figures in Table 4B are more realistic and more accurate.

IV. METALS INFORMATION

The concentration of each of the nine (9) metals listed in *Table 1 of 40 CFR Part 503.13(b)(1)* was measured in all liquid sludge generated at the 14 Wastewater Treatment plants and in the biosolids generated at eight dewatering facilities. The DEP maintains an extensive database that contains metals data from the analyses performed at the ELAP certified DEP metals laboratories and the outside contract laboratories utilized by the contractors. Tables 1 and 1A contain the analytical methods utilized by DEP respectively, for determining the concentrations of the metals in liquid sludge and biosolids. The following protocol is employed by DEP for samples of biosolids taken for metals analyses:

A grab sample of biosolids is taken from the conveyor belts that transport the material from the centrifuges to the biosolids storage hoppers, placed in a clean sampling container once per 8-hour shift and composited daily (3 grab samples per day). Although not regularly practiced, grab samples may also be taken from the sampling ports on the centrifuges, the biosolids storage hoppers and/or while the material is being discharged into a contractor's vehicle in the truck loading bays. Samples are labeled with the date, time and, where applicable, the train of centrifuges from which the sample was retrieved.

These samples are sent to DEP's Process Control Laboratories where a composite sample

is prepared and analyzed for total solids content. An aliquot of this daily composite is taken to prepare a monthly composite sample which is analyzed for metal content by DEP's Metal Laboratory. During the collection, the samples are kept at or below 39°F (4°C).

At the 26th Ward, Hunts Point, Wards Island, Bowery Bay and Oakwood Beach sludge dewatering facilities, liquid sludge from a “host” and one or more “guest” WWTPs is dewatered. At a “host” facility, the biosolids may be of various origins warranting slightly different sampling conventions as described below:

- a. Liquid sludge from two or more WWTPs is mixed in the liquid sludge storage tank at the host WWTP. When this occurs, the liquid sludge mixture is dewatered and grab samples of that biosolids “mixture” are taken for the daily composite. Numerous combinations of liquid sludge from varying origins may pass through a liquid sludge storage tank in any one monitoring period. The metals analyses results of the sample for that monitoring period, contains the origin of each sludge comprising the sample and is reported with that information.
- b. Biosolids from two or more WWTPs are deposited into a common biosolid storage hopper from which grab samples are taken. When this occurs, the metals analyses results of the composite sample for that monitoring period contains the origin of each sludge comprising the sample and is reported with that information.
- c. Liquid sludge from each “host” and “guest” WWTP may be stored in separate liquid sludge storage tanks, dewatered by separate trains of centrifuges and stored in separate storage hoppers. When this occurs, separate grab samples of biosolids from each, the “host” and “guest” WWTP are taken, analyzed separately and reported as two distinct sludge. Whenever possible DEP has made its best effort to keep sludge of different origins separated.

Table 1
Analytical Methods for Metals Concentrations (Liquid Sludge)
NYC DEP Laboratories

Metals	Sample Preparation and Analytical Methodologies * USEPA SW-846 & US EPA 600/4-79-020
Arsenic	EPA Methods 6020 / 6020A
Beryllium	EPA Methods 6020 / 6020 A
Cadmium	EPA Methods 6010B / 6010C
Chromium	EPA Methods 6010B / 6010 C
Copper	EPA Methods 6010B / 6010 C
Lead	EPA Methods 6010B / 6010 C
Mercury	EPA Methods 7470A / 7471B
Molybdenum	EPA Methods 6010B / 6010 C
Nickel	EPA Methods 6010B / 6010 C
Selenium	EPA Methods 6020 / 6020 A
Zinc	EPA Methods 6010B / 6010C

Table 1A
Analytical Methods for Metals Concentrations (Biosolids)
NYC DEP Laboratories

Metals	Sample Preparation and Analytical Methodologies * USEPA SW-846 & US EPA 600/4-79-020
Arsenic	EPA Methods 6020 / 6020A
Cadmium	EPA Methods 6010B / 6010 C
Chromium	EPA Methods 6010B / 6010C
Copper	EPA Methods 6010B / 6010 C
Lead	EPA Methods 6010B / 6010 C
Mercury	EPA Methods 7471A / 7471 B
Molybdenum	EPA Methods 6010B / 6010 C
Nickel	EPA Methods 6010B / 6010 C
Selenium	EPA Methods 6020 / 6020 A
Zinc	EPA Methods 6010B / 6010 C

V. PATHOGEN INFORMATION & VECTOR ATTRACTION REDUCTION

The biosolids generated at the treatment plants were not certified for pathogen reduction or vector attraction reduction in 2015. All biosolids were removed by contractor for further processing and/or disposal.

VI. SLUDGE MANAGEMENT CONTRACTORS

Table 2: Sludge Management Contractor Information

Contractor	Address	Contact	End Use	Site Locations
EPIC – Landfill Contract: 1425-BIO	100 Stierli Court, Suite 103 Mt. Arlington, NJ07856	Mr. Neil Rogers Project Manager (973) 690-2947	Landfill	New Lexington, OH Mauk, GA Morrisville, PA Container First Services (CFS) in Petersburg, VA
Tully Environmental Contract: 1419-TDR	127-50 Northern Blvd Flushing, NY 11368	Dean Devoe Project Manager (718) 446-7000 x298	Landfill	Lowellville, OH Kersey, PA Stanley, NY
Action Carting Contract: 1280-BIO	375 Rt. 1 & 9 South Jersey City, NJ 07306	Albert Kajtazi Project Manager (201) 954-2356	Landfill	Tullytown, PA Morrisville, PA Pen Argyl, PA Coalton, KY
Action Carting Contract: 1280-BIO	375 Rt. 1 & 9 South Jersey City, NJ 07306	Albert Kajtazi Project Manager (201) 954-2356	Landfill	Tullytown, PA Morrisville, PA Pen Argyl, PA Coalton, KY
EPIC Contract: 1369-BIO	100 Stierli Court, Suite 103 Mt. Arlington, NJ07856	Mr. Neil Rogers Project Manager (973) 690-2947	Landfill Beneficial Use	New Lexington, OH Mauk, GA Morrisville, PA Container First Services (CFS) in Petersburg, VA
We Care Organics Contract: 1236-BIO	9293 Bonta Bridge Rd. Jordan, NY13080	Jason Fleury Project Manager 315-952-1538	Mine Reclamation	Tremont, PA Centre County, PA Clearfield County, PA
We Care Organics Contract: 1308-BIO	9293 Bonta Bridge Rd. Jordan, NY13080	Owen Sheehan Project Manager (609) 499-7805	Landfill Beneficial Use	Tullytown, PA Morrisville, PA Pen Argyl, PA

VII. NOTES

All numbers have been calculated to the best of our ability. Tables may not add up due to variations in calculations such as basing data on liquid sludge production as opposed to calculated weights from biosolids hauling contractors.

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**26TH WARD
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
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February 2016

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Table 4A, Monthly Liquid Sludge Allocations
Table 4B, Monthly Biosolids Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the 26th Ward WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
26 th Ward Wastewater Treatment Plant	122-66 Flatlands Avenue Brooklyn, NY 11207	Yes	NY0026212	Superintendent Eugene Tripi (718) 642-7705	Salvatore Scapelito

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type Of Permit (Federal, State)
26 th Ward Wastewater Treatment Plant	122-66 Flatlands Avenue Brooklyn, NY 11207	Air State Facility Permit	261050000902003	State

I. 26TH WARD LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at 26th Ward was dewatered at the 26th Ward sludge dewatering facility. Approximately **5,360** dry metric tons of 26th Ward sludge were generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.

II. 26TH WARD LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the 26th Ward WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of 26th Ward biosolids generated each month.

During this reporting period, 26th Ward biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, 26th Ward biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. 26TH WARD BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE 26TH WARD WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE 26TH WARD DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the 26th Ward dewatering facility.

B. EPIC-Landfill under Contract 1425-BIO

Approximately **410.02** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the 26th Ward dewatering facility during this reporting period.

C. Action Carting under Contract 1280-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Action Carting** (see introduction for processing details) from the 26th Ward dewatering facility.

D. Action Carting 2 under Contract 1333-BIO

Approximately **14,375.53** dry metric tons of the biosolids mix were distributed to **Action Carting 2** (see introduction for processing details) from the 26th Ward dewatering facility.

E. EPIC-Landfill under Contract 1369-BIO

Approximately **3,311.11** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the 26th Ward dewatering facility during this reporting period

F. We Care Organics under Contract 1236-BIO

Approximately **1,314.09** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the 26th Ward dewatering facility during this reporting period.

G. We Care Organics under Contract 1308-BIO

Approximately **1,572.30** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the 26th Ward dewatering facility during this reporting period.

Table 2 in the Introduction Section contains requisite information specific to each of the seven sludge management contractors.

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APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

Table 3
Monthly Liquid Sludge Production
26th Ward WWTP

Month	Liquid Sludge Production (DMT)*
January-15	458
February-15	238
March-15	326
April-15	384
May-15	447
June-15	618
July-15	517
August-15	520
September-15	498
October-15	439
November-15	448
December-15	467
TOTALS	5,360

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
26th Ward WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

Table 4B
Monthly Biosolids Allocations to Contractors
26W Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15					36.85		1309.03	1,345.89
Feb-15					994.51		256.83	1,251.34
Mar-15				790.23	409.56	139.41		1,339.20
Apr-15				914.85	24.01	625.26	6.44	1,570.55
May-15				1249.53	92.69	344.46		1,686.67
Jun-15				1695.49	315.59	204.97		2,216.04
Jul-15				1958.66	439.27			2,397.93
Aug-15				1443.36	230.12			1,673.48
Sep-15		185.22		1643.08	257.76			2,086.07
Oct-15		224.80		1664.32	48.70			1,937.82
Nov-15				1456.33	225.43			1,681.76
Dec-15				1559.67	236.62			1796.29
TOTALS	0.00	410.02	0.00	14,375.53	3,311.11	1,314.09	1,572.30	20,983.05

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5A
Monthly Metals Concentrations for Liquid Sludge
26th Ward WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0382	0.0037	0.1030	0.7600	8.55	2.69	0.0265	0.0715	0.3570	0.0576	17.3
February-15	0.0540	0.0023	0.0566	0.5600	7.98	1.73	0.0121	0.0595	0.2380	0.0514	12.5
March-15	0.0814	0.0032	0.0833	0.6240	9.14	2.16	0.0133	0.0525	0.2850	0.0472	15.3
April-15	0.0955	0.0035	0.1010	0.6440	9.00	2.22	0.0199	0.0707	0.2930	0.0776	14.9
May-15	0.0514	0.0065	0.0197	0.3060	9.22	0.97	0.0190	0.0747	0.5020	0.0629	13.2
June-15	0.0601	0.0021	0.0621	0.4270	7.64	1.05	0.0163	0.0591	0.6700	0.0666	12.3
July-15	0.0400	0.0016	0.0438	0.3320	5.40	0.85	0.0223	0.0314	0.5690	0.0584	11.2
August-15	0.0393	0.0014	0.0290	0.2440	5.10	0.70	0.0148	0.0471	0.4210	0.0590	10.2
September-15	0.0460	0.0019	0.0626	0.3390	7.00	0.93	0.0179	0.0951	0.5870	0.0677	13.7
October-15	0.0366	0.0015	0.0343	0.2590	5.83	0.80	0.0104	0.0398	0.5030	0.0605	10.6
November-15	0.0422	0.0016	0.0366	0.2800	5.77	0.84	0.0118	0.0482	0.4800	0.0634	10.4
December-15	0.0566	0.0025	0.0606	0.3550	6.95	0.96	0.0130	0.0790	0.6330	0.0967	14.1

Table 5B
Monthly Metals Concentrations for Biosolids
26th Ward Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	3.23	3.91	32.2	540	150	1.3	4.3	18.3	4.3	963
February-15	3.20	3.15	34.4	529	115	1.3	4.5	19.8	4.3	820
March-15	3.84	4.17	27.8	491	121	1.0	3.5	15.8	3.2	789
April-15	4.12	4.54	35.0	506	125	1.4	4.8	18.4	4.3	822
May-15	4.25	2.60	24.1	562	140	1.2	8.1	18.4	3.9	939
June-15	3.29	4.00	28.1	504	144	1.2	5.0	16.1	4.0	852
July-15	2.82	4.37	34.0	499	159	1.5	6.0	18.1	4.4	958
August-15	3.19	3.81	36.0	547	150	1.4	7.5	17.5	6.2	1020
September-15	2.54	3.01	30.8	513	122	1.1	5.7	14.3	4.3	874
October-15	2.00	3.36	29.4	560	133	1.3	6.6	15.8	5.0	901
November-15	2.60	3.65	25.1	523	115	1.0	5.0	13.7	5.9	822
December-15	3.24	3.35	30.2	550	127	1.0	6.6	17.1	5.8	868

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**BOWERY BAY
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



February 2016

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Table 4A, Monthly Liquid Sludge Allocations
Table 4B, Monthly Biosolids Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Bowery Bay WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Bowery Bay Wastewater Treatment Plant	43-01 Berrian Boulevard, Astoria, NY 11105	Yes	NY0026158	Superintendent Eric Klee (718) 728-3975	Yue Yue Guo

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Bowery Bay Wastewater Treatment Plant	43-01 Berrian Boulevard, Astoria, NY 11105	Air State Facility Permit	263010000802003	State

I. BOWERY BAY LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Bowery Bay was dewatered at the Bowery Bay dewatering facility. Approximately **15,090** dry metric tons of Bowery Bay sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. BOWERY BAY LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Bowery Bay WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Bowery Bay biosolids generated each month.

During this reporting period, Bowery Bay biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, Bowery Bay biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. BOWERY BAY BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE BOWERY BAY WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE BOWERY BAY DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

During this reporting period **no** dry metric tons of the biosolids were distributed to **Tully Environmental** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

B. EPIC-Landfill under Contract 1425-BIO

Approximately **531.09** dry metric tons of the biosolids were distributed to **EPIC** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

C. Action Carting under Contract 1280-BIO

Approximately **925.12** dry metric tons of the biosolids were distributed to **Action Carting** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

D. Action Carting 2 under Contract 1333-BIO

Approximately **5,764.40** dry metric tons of the biosolids were distributed to **Action Carting 2** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

E. EPIC-Landfill under Contract 1369-BIO

Approximately **3,429.67** dry metric tons of the biosolids were distributed to **EPIC-Landfill** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

F. We Care Organics under Contract 1236-BIO

During this reporting period **no** dry metric tons of the biosolids were distributed to **We Care Organics** (see introduction for processing details) from the Bowery Bay dewatering facility.

G. We Care Organics under Contract 1308-BIO

Approximately **99.27** dry metric tons of the biosolids were distributed to **We Care Organics** (see introduction for processing details) from the Bowery Bay dewatering facility during this reporting period.

Table 2 in the introduction Section contains requisite information specific to each of the seven sludge management contractors.

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

Table 3
Monthly Liquid Sludge Production
Bowery Bay WWTP

Month	Liquid Sludge Production (DMT)*
January-15	1,155
February-15	1,033
March-15	1,243
April-15	1,171
May-15	1,404
June-15	1,355
July-15	1,355
August-15	1,413
September-15	1,207
October-15	1,290
November-15	1,217
December-15	1,248
TOTALS	15,090

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Bowery Bay WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Bowery Bay Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15					803.80		99.27	903.07
Feb-15			512.90		217.96			730.86
Mar-15			412.21	502.92	49.21			964.34
Apr-15				1126.29	22.19			1,148.48
May-15				1040.55	49.86			1,090.41
Jun-15				890.66	70.11			960.78
Jul-15				862.80	129.09			991.90
Aug-15				704.07	79.84			783.91
Sep-15		531.09		219.99	90.88			841.96
Oct-15				46.50	733.13			779.62
Nov-15				202.77	528.58			731.35
Dec-15				167.85	655.02			822.86
TOTALS	0.00	531.09	925.12	5,764.40	3,429.67	0.00	99.27	10,749.55

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Bowery Bay WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0790	0.0022	0.0302	0.3610	6.24	1.32	0.0118	0.0596	0.2700	0.0603	9.5
February-15	0.0754	0.0015	0.0269	0.2820	5.51	0.96	0.0087	0.0427	0.2200	0.0398	7.5
March-15	0.0983	0.0019	0.0451	0.3370	5.83	1.15	0.0116	0.0323	0.2720	0.0367	8.9
April-15	0.1180	0.0023	0.0537	0.3940	7.60	1.36	0.0159	0.0561	0.4190	0.0559	9.9
May-15	0.0545	0.0028	0.0093	0.1780	3.86	0.73	0.0090	0.0520	0.1580	0.0301	6.1
June-15	0.0853	0.0031	0.0618	0.6370	8.93	2.08	0.0230	0.0796	0.5510	0.0616	13.4
July-15	0.0800	0.0027	0.0526	0.5630	7.06	1.98	0.0261	0.0607	0.3950	0.0624	13.8
August-15	0.0793	0.0028	0.0408	0.5240	7.82	1.79	0.0236	0.0804	0.3260	0.0720	13.8
September-15	0.0682	0.0021	0.0579	0.4480	7.94	1.54	0.0110	0.1140	0.2890	0.0675	14.4
October-15	0.0570	0.0020	0.0376	0.4120	7.80	1.53	0.0222	0.0748	0.2880	0.0698	12.5
November-15	0.0618	0.0020	0.0343	0.3620	7.38	1.34	0.0145	0.0547	0.3290	0.0640	10.2
December-15	0.0685	0.0023	0.0413	0.3680	7.16	1.34	0.0126	0.0520	0.3100	0.0784	11.2

Table 5B
Monthly Metals Concentrations for Biosolids
Bowery Bay Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	2.53	3.01	41.2	549	128	1.4	4.4	28.0	4.3	951
February-15	3.03	3.20	36.0	500	96	1.1	5.3	18.7	4.2	738
March-15	4.78	4.28	37.0	520	125	0.9	4.2	22.0	3.3	855
April-15	3.60	3.98	33.5	477	114	1.1	4.3	20.0	3.8	757
May-15	2.71	1.43	24.3	502	99	1.0	7.7	20.4	4.4	843
June-15	2.92	3.40	33.7	469	121	0.8	5.9	21.2	4.1	803
July-15	2.16	4.30	46.4	511	142	1.2	6.8	25.2	4.3	965
August-15	2.72	4.02	53.5	596	152	1.2	9.8	28.4	7.1	1140
September-15	2.45	3.39	43.0	587	131	1.2	9.2	40.7	5.2	993
October-15	1.64	3.42	40.1	568	126	1.0	7.1	25.7	4.7	925
November-15	2.55	3.36	36.4	566	121	1.3	6.7	21.8	6.7	879
December-15	3.39	3.04	35.4	533	116	2.4	7.7	21.8	6.8	809

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**CONEY ISLAND
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
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February 2016

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Table 4A, Monthly Liquid Sludge Allocations
- Appendix B - Table 5A, Monthly Average Metals Data

Requisite information, specific to the Coney Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Coney Island Wastewater Treatment Plant	2591 Knapp Street Brooklyn, NY 11235	No	NY0026182	Superintendent Howard Robinson (718) 595-5361	James Taiwo

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Coney Island Wastewater Treatment Plant	2591 Knapp Street Brooklyn, NY 11235	Title V	261070000400017	Federal

I. CONEY ISLAND DEWATERED SLUDGE QUANTITIES

A. DEWATERING FACILITY ALLOCATIONS

The Coney Island WWTP is not furnished with a sludge dewatering facility. Liquid sludge from Coney Island is pumped approximately 7-miles through a 12-inch force main to the 26th Ward WWTP where the liquid sludge is dewatered.

For the reporting period of January 1 through December 31, 2015 approximately **9,259** dry metric tons of Coney Island liquid sludge were generated. The sludge was dewatered at the 26th Ward dewatering facility. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. CONEY ISLAND LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Coney Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Coney Island sludge generated each month.

III. CONEY ISLAND BIOSOLIDS ALLOCATIONS --NA

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Coney Island WWTP

Month	Liquid Sludge Production (DMT)*
January-15	821
February-15	781
March-15	593
April-15	287
May-15	518
June-15	1,033
July-15	1,457
August-15	502
September-15	855
October-15	716
November-15	716
December-15	981
TOTALS	9,259

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Coney Island WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15	759.00									759
Feb-15	767.00									767
Mar-15	270.00									270
Apr-15	270.00									270
May-15	492.00									492
Jun-15	984.00									984
Jul-15	1469.00									1,469
Aug-15	500.00									500
Sep-15	849.00									849
Oct-15	715.00									715
Nov-15	650.00									650
Dec-15	562.00									562
TOTALS	8,287.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,287.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Coney Island WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0578	0.0021	0.0401	0.3550	7.82	2.54	0.0187	0.0429	0.3150	0.0400	15.2
February-15	0.0646	0.0022	0.0421	0.3460	9.19	2.60	0.0317	0.0365	0.2830	0.0437	14.1
March-15	0.0819	0.0026	0.0568	0.4250	10.40	2.81	0.0142	0.0416	0.3720	0.0394	19.0
April-15	0.0929	0.0034	0.0636	0.4870	10.30	3.55	0.0412	0.0545	0.3820	0.0791	21.0
May-15	0.0716	0.0053	0.0144	0.2120	16.60	1.21	0.0126	0.0720	0.1830	0.0490	10.2
June-15	0.0885	0.0030	0.0715	0.4530	20.70	2.18	0.0386	0.0840	0.3330	0.0860	15.2
July-15	0.0929	0.0028	0.0722	0.5050	29.10	2.59	0.0243	0.0926	0.5160	0.0940	23.2
August-15	0.0953	0.0026	0.0490	0.3840	14.10	2.07	0.0173	0.0738	0.3400	0.0821	16.1
September-15	0.1020	0.0039	0.0326	0.4640	37.30	2.33	0.0196	0.1340	0.5650	0.0914	29.4
October-15	0.0797	0.0032	0.0603	0.4170	35.60	2.45	0.0076	0.0927	0.4630	0.0845	28.3
November-15	0.1010	0.0035	0.0660	0.4040	20.20	2.38	0.0238	0.0778	0.3710	0.0875	19.1
December-15	0.0802	0.0043	0.0595	0.3380	14.00	1.67	0.0114	0.0582	0.2780	0.0888	14.6

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**HUNTS POINT
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
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(718) 595-5056



February 2016

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Requisite information, specific to the Hunts Point WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Hunts Point Wastewater Treatment Plant	1270 Ryawa Avenue Bronx, NY 10474	Yes	NY0026191	Superintendent Steve Winrock (718) 589-1120	Antonio Ho

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Hunts Point Wastewater Treatment Plant	1270 Ryawa Avenue Bronx, NY 10474	Air State Facility Permit	260070002502005	State

I. HUNTS POINT LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Hunts Point was dewatered at the Hunts Point dewatering facility. Approximately **14,250** dry metric tons of Hunts Point sludge was generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.

II. HUNTS POINT LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Hunts Point WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Hunts Point biosolids generated each month.

During this reporting period, Hunts Point biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, Hunts Point biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. HUNTS POINT BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE HUNTS POINT WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE HUNTS POINT DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

B. EPIC-Landfill under Contract 1425-BIO

Approximately **6,524.01** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

C. Action Carting, under contract 1280-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Action Carting** (see introduction for processing details) from the Hunts Point dewatering facility.

D. Action Carting 2, under Contract 1333-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Action Carting 2** (see introduction for processing details) from the Hunts Point dewatering facility.

E. EPIC-Landfill, under Contract 1369-BIO

Approximately **17,556.27** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Hunts Point dewatering facility during this reporting period.

F. We Care Organics under Contract 1236-BIO

During this reporting period **no** biosolids mix was distributed to **We Care Organics** (see introduction for processing details) from the Hunts Point dewatering facility.

G. We Care Organics under Contract 1308-BIO

During this reporting period **no** biosolids mix was distributed to **We Care Organics** (see introduction for processing details) from the Hunts Point dewatering facility.

Table 2 in the introduction contains requisite information specific to each of the seven sludge management contractors.

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Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

Table 3
Monthly Liquid Sludge Production
Hunts Point WWTP

Month	Liquid Sludge Production (DMT)*
January-15	929
February-15	1,022
March-15	1,071
April-15	1,072
May-15	1,103
June-15	1,433
July-15	1,346
August-15	1,186
September-15	1,318
October-15	1,277
November-15	968
December-15	1,523
TOTALS	14,250

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Hunts Point WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Hunts Point Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15					1865.55			1,865.55
Feb-15					1646.88			1,646.88
Mar-15					2036.94			2,036.94
Apr-15					2091.36			2,091.36
May-15					1929.00			1,929.00
Jun-15					2074.07			2,074.07
Jul-15					1627.91			1,627.91
Aug-15					2026.93			2,026.93
Sep-15					2257.64			2,257.64
Oct-15		2373.12						2,373.12
Nov-15		2254.57						2,254.57
Dec-15		1896.31						1,896.31
TOTALS	0.00	6,524.01	0.00	0.00	17,556.27	0.00		24,080.28

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Hunts Point WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0447	0.0026	0.0551	0.7850	8.30	2.27	0.0165	0.0663	0.6010	0.0446	12.7
February-15	0.0508	0.0026	0.0644	0.7620	11.00	2.10	0.0212	0.0999	0.4840	0.0586	14.6
March-15	0.0594	0.0031	0.0935	0.8590	12.30	2.39	0.0151	0.0867	0.7140	0.0484	15.8
April-15	0.0974	0.0046	0.1120	1.2000	13.20	2.99	0.0268	0.1100	0.5550	0.0937	17.3
May-15	0.0688	0.0068	0.0344	0.7740	12.10	2.40	0.0225	0.1630	0.3940	0.0777	15.2
June-15	0.0615	0.0031	0.0859	1.1500	12.40	2.88	0.0187	0.1530	0.5760	0.0811	16.5
July-15	0.0534	0.0038	0.0731	1.1900	11.40	2.67	0.0251	0.0853	0.4780	0.0644	17.0
August-15	0.0582	0.0033	0.0566	1.4200	10.60	2.41	0.0178	0.1480	0.5560	0.0758	15.9
September-15	0.0492	0.0026	0.0856	1.2700	11.50	2.05	0.0190	0.1840	0.4980	0.0779	16.7
October-15	0.0408	0.0024	0.0625	1.4800	12.20	2.23	0.0217	0.1490	0.4630	0.0686	15.7
November-15	0.0362	0.0027	0.0530	0.9930	6.92	1.52	0.0125	0.0579	0.3370	0.0502	13.1
December-15	0.0700	0.0044	0.0844	1.0800	11.80	2.35	0.0176	0.1360	0.6950	0.0934	16.5

Table 5B
Monthly Metals Concentrations for Biosolids
Hunts Point Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	2.60	3.62	39.6	505	120	1.1	5.8	26.0	3.1	757
February-15	2.52	4.18	40.4	574	109	1.2	6.6	22.0	3.3	756
March-15	3.62	7.29	45.3	619	145	1.3	8.7	24.8	2.8	922
April-15	3.06	4.81	48.8	541	127	1.3	5.7	20.7	3.1	732
May-15	2.64	1.58	27.6	597	121	1.3	13.6	22.3	3.2	828
June-15	2.86	4.79	61.0	574	140	1.1	6.7	24.7	3.3	814
July-15	2.38	4.81	65.1	668	156	1.6	9.2	24.0	3.3	877
August-15	3.51	4.58	79.6	655	180	1.8	15.7	33.0	4.7	1070
September-15	2.85	3.99	65.7	634	138	1.4	19.0	38.0	4.2	951
October-15	1.81	3.86	55.1	642	141	1.6	16.1	22.0	4.3	905
November-15	3.18	4.81	51.1	621	128	1.6	9.5	25.1	4.8	855
December-15	3.98	4.52	43.6	674	146	1.0	14.6	27.1	5.7	899

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**JAMAICA
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
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Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Jamaica WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Jamaica Wastewater Treatment Plant	150-20 134th Street Jamaica, NY 11430	Yes	NY0026115	Superintendent Chris Malatos (718) 529-3549	Don Akamnonu

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Jamaica Wastewater Treatment Plant	150-20 134th Street Jamaica, NY 11430	Air State Facility Permit	263080002102002	State

I. JAMAICA DEWATERED SLUDGE QUANTITIES

A. DEWATERING FACILITY ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Jamaica was dewatered at the 26th Ward sludge dewatering facility. Approximately **9,307** dry metric tons of Jamaica sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. JAMAICA LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Jamaica WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Jamaica biosolids generated each month.

III. JAMAICA BIOSOLIDS ALLOCATION

NOTE: The Jamaica Dewatering Facility has been shut down for the reporting period of January 1 through December 31, 2015.

APPENDICES

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Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Jamaica WWTP

Month	Liquid Sludge Production (DMT)*
January-15	486
February-15	486
March-15	465
April-15	596
May-15	1,095
June-15	1,211
July-15	913
August-15	913
September-15	984
October-15	912
November-15	710
December-15	537
TOTALS	9,307

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Jamaica WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15	488.00									488.00
Feb-15	472.00									472.00
Mar-15	462.00									462.00
Apr-15	526.00									526.00
May-15	708.00									708.00
Jun-15	758.00									758.00
Jul-15	587.00									587.00
Aug-15	954.00									954.00
Sep-15	693.00									693.00
Oct-15	825.00									825.00
Nov-15	636.00									636.00
Dec-15	565.00									565.00
TOTALS	7,674.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,674.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Jamaica Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15								0.00
Feb-15								0.00
Mar-15								0.00
Apr-15								0.00
May-15								0.00
Jun-15								0.00
Jul-15								0.00
Aug-15								0.00
Sep-15								0.00
Oct-15								0.00
Nov-15								0.00
Dec-15								0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00		0.00

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

Jamaica Dewatering Facility was shut down in December 2011.

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Jamaica WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0521	0.0015	0.0245	0.2870	6.05	1.73	0.0231	0.0168	0.2110	0.0498	10.9
February-15	0.0645	0.0015	0.0271	0.2620	6.88	1.70	0.0221	0.0278	0.1910	0.0524	10.4
March-15	0.0620	0.0013	0.0273	0.2260	3.42	1.42	0.0055	<LOD	0.1660	0.0242	9.0
April-15	0.0384	0.0007	0.0147	0.1060	1.93	0.66	0.0077	<0.00309	0.1030	0.0254	3.9
May-15	0.0810	0.0060	0.0526	0.5140	12.20	2.79	0.0218	0.1400	0.2320	0.0794	19.5
June-15	0.0737	0.0039	0.2580	0.8800	12.00	3.15	0.0196	0.1170	0.3730	0.0799	19.8
July-15	0.0623	0.0037	0.1140	1.0100	10.20	3.51	0.0303	0.1260	0.4430	0.0771	22.7
August-15	0.0649	0.0038	0.0961	0.9830	11.90	3.29	0.0527	0.1370	0.4120	0.0873	23.6
September-15	0.0428	0.0031	0.1280	0.8800	8.44	2.22	0.0150	0.1360	0.3110	0.0615	17.5
October-15	0.0345	0.0029	0.0757	0.7850	9.84	2.29	0.0181	0.0920	0.2970	0.0639	17.0
November-15	0.0528	0.0035	0.1080	0.7910	12.50	2.56	0.0480	0.1010	0.3560	0.0770	20.9
December-15	0.0588	0.0045	0.1210	0.7940	12.50	2.36	0.0178	0.1220	0.3560	0.1070	20.8

Table 5B
Monthly Metals Concentrations for Biosolids
Jamaica Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15										
February-15										
March-15										
April-15										
May-15										
June-15										
July-15										
August-15										
September-15										
October-15										
November-15										
December-15										

Jamaica Dewatering Shut Down

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**NEWTOWN CREEK
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
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Requisite information, specific to the Newtown Creek WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Newtown Creek Wastewater Treatment Plant	329 Greenpoint Avenue Brooklyn, NY 11222	No	NY0026204	Superintendent Zainool Ali (718) 389-2002	Moein Karim

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Newtown Creek Wastewater Treatment Plant	301 Green point Avenue Brooklyn, NY 11222	Title V	261010002500057	Federal

I. NEWTOWN CREEK LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **15,861** dry metric tons of Newtown Creek liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, Wards Island, 26th Ward, Oakwood Beach (transported by force main from Port Richmond), and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. NEWTOWN CREEK LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Newtown Creek WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Newtown Creek sludge generated each month.

III. NEWTOWN CREEK BIOSOLIDS ALLOCATIONS – N/A

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Newtown Creek WWTP

Month	Liquid Sludge Production (DMT)*
January-15	1,176
February-15	880
March-15	1,369
April-15	1,282
May-15	1,299
June-15	1,760
July-15	1,558
August-15	1,539
September-15	1,348
October-15	1,449
November-15	1,098
December-15	1,103
TOTALS	15,861

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Newtown Creek WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Port Richmond (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15			214.00					1150.00	279.00	1,643.00
Feb-15			200.00					742.00	467.00	1,409.00
Mar-15			311.00					725.00	1027.00	2,063.00
Apr-15			172.00	179.00				356.00	1202.00	1,909.00
May-15	159.00		128.00	54.00				143.00	1245.00	1,729.00
Jun-15			290.00					626.00	1353.00	2,269.00
Jul-15			613.00	123.00				864.00	504.00	2,104.00
Aug-15			584.00	117.00				823.00	480.00	2,004.00
Sep-15			669.00	41.00				1054.00	383.00	2,147.00
Oct-15			695.00					696.00	358.00	1,749.00
Nov-15			899.00	49.00				283.00	499.00	1,730.00
Dec-15			499.00	109.00				667.00	606.00	1,881.00
TOTALS	159.00	0.00	5,274.00	672.00	0.00	0.00	0.00	8,129.00	8,403.00	22,637.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Newtown Creek WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0644	0.0032	0.0537	0.4130	7.47	1.83	0.0190	0.0880	0.2490	0.0526	12.0
February-15	0.0966	0.0024	0.0599	0.4300	9.53	1.77	0.0124	0.0934	0.2410	0.0546	10.9
March-15	0.1190	0.0029	0.0758	0.4770	16.30	2.00	0.0091	0.0764	0.3050	0.0422	12.8
April-15	0.1220	0.0034	0.0809	0.4820	10.60	2.07	0.0247	0.0988	0.3000	0.0662	12.4
May-15	0.1120	0.0052	0.1440	0.7460	12.60	3.32	0.0278	0.3370	0.5800	0.0862	21.2
June-15	0.0897	0.0038	0.1470	0.9990	11.70	3.68	0.0484	0.3370	0.6980	0.0724	22.7
July-15	0.0532	0.0037	0.1150	0.9910	5.93	3.91	0.0466	0.1550	0.5280	0.0450	22.2
August-15	0.0941	0.0039	0.1070	1.0800	12.10	4.04	0.0675	0.3680	0.5200	0.0857	20.4
September-15	0.0845	0.0043	0.1580	1.0400	12.80	3.58	0.0446	0.4380	0.5080	0.0850	22.0
October-15	0.0631	0.0038	0.1460	0.9620	11.80	3.64	0.0447	0.3460	0.5380	0.0736	20.7
November-15	0.0803	0.0039	0.1360	0.9500	11.00	3.14	0.0554	0.2990	0.5240	0.0763	19.0
December-15	0.1100	0.0041	0.1660	1.0500	13.40	3.50	0.0405	0.3970	0.5980	0.1180	21.8

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**NORTH RIVER
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



February 2016

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Requisite information, specific to the North River WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
North River Wastewater Treatment Plant	725 West 135 th Street New York, NY 10031	No	NY0026247	Superintendent Courtney Anderson (212) 491-5050	George Sarkissian

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
North River Wastewater Treatment Plant	725 West 135 th Street New York, NY 10031	Title V	262020000700015	Federal
North River Wastewater Treatment Plant	725 West 135 th Street New York, NY 10031	Air State Facility Permit for 1 emergency engine generator	262020000700019	State

I. NORTH RIVER LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **12,913** dry metric tons of North River liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, Wards Island, Oakwood Beach (transported by force main from Port Richmond) and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. NORTH RIVER LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the North River WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of North River sludge generated each month.

III. NORTH RIVER BIOSOLIDS ALLOCATIONS – N/A

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
North River WWTP

Month	Liquid Sludge Production (DMT)*
January-15	1,043
February-15	1,232
March-15	1,616
April-15	1,553
May-15	881
June-15	1,179
July-15	744
August-15	766
September-15	938
October-15	983
November-15	844
December-15	1,134
TOTALS	12,913

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
North River WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Port Richmond (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15		52.00	299.00	114.00			725.00	84.00	1,274.00
Feb-15			226.00	77.00			453.00	100.00	856.00
Mar-15			453.00	116.00			448.00	52.00	1,069.00
Apr-15		43.00	554.00	125.00			391.00	54.00	1,167.00
May-15		37.00	631.00	201.00			322.00	157.00	1,348.00
Jun-15		216.00	255.00	166.00		28.00	238.00	267.00	1,170.00
Jul-15		172.00	789.00	191.00				295.00	1,447.00
Aug-15		46.00	610.00	148.00				228.00	1,032.00
Sep-15		154.00	705.00	171.00				263.00	1,293.00
Oct-15		78.00	823.00	145.00			551.00	79.00	1,676.00
Nov-15		129.00	754.00	285.00			446.00	55.00	1,669.00
Dec-15		127.00	689.00	198.00			136.00		1,150.00
TOTALS	0.00	1,054.00	6,788.00	1,937.00	0.00	28.00	3,710.00	1,634.00	15,151.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
North River WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0790	0.0022	0.0302	0.3610	6.24	1.32	0.0118	0.0596	0.2700	0.0603	9.5
February-15	0.0754	0.0015	0.0269	0.2820	5.51	0.96	0.0087	0.0427	0.2200	0.0398	7.5
March-15	0.0983	0.0019	0.0451	0.3370	5.83	1.15	0.0116	0.0323	0.2720	0.0367	8.9
April-15	0.1180	0.0023	0.0537	0.3940	7.60	1.36	0.0159	0.0561	0.4190	0.0559	9.9
May-15	0.0545	0.0028	0.0093	0.1780	3.86	0.73	0.0090	0.0520	0.1580	0.0301	6.1
June-15	0.0853	0.0031	0.0618	0.6370	8.93	2.08	0.0230	0.0796	0.5510	0.0616	13.4
July-15	0.0800	0.0027	0.0526	0.5630	7.06	1.98	0.0261	0.0607	0.3950	0.0624	13.8
August-15	0.0793	0.0028	0.0408	0.5240	7.82	1.79	0.0236	0.0804	0.3260	0.0720	13.8
September-15	0.0682	0.0021	0.0579	0.4480	7.94	1.54	0.0110	0.1140	0.2890	0.0675	14.4
October-15	0.0570	0.0020	0.0376	0.4120	7.80	1.53	0.0222	0.0748	0.2880	0.0698	12.5
November-15	0.0618	0.0020	0.0343	0.3620	7.38	1.34	0.0145	0.0547	0.3290	0.0640	10.2
December-15	0.0685	0.0023	0.0413	0.3680	7.16	1.34	0.0126	0.0520	0.3100	0.0784	11.2

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**OAKWOOD BEACH
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Oakwood Beach WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Oakwood Beach Wastewater Treatment Plant	751 Mill Road Staten Island, NY 10306	Yes	NY0026174	Superintendent Phillip Rocle (718) 351-8882	Barbara Sallusto

Additional Permits

Facility Name	Facility Location	Permit Name	Permit #	Type of Permit (Federal, State)
Oakwood Beach Wastewater Treatment Plant	751 Mill Road Staten Island, NY 10306	Registration	264040006502000	State

I. OAKWOOD BEACH LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Oakwood Beach was dewatered at the Oakwood Beach sludge dewatering facility. Approximately **2,604** dry metric tons of Oakwood Beach sludge were generated. Table 3 and Table 4A of Appendix A contain the monthly liquid sludge production and allocations figures in dry metric tons for this reporting period.

II. OAKWOOD BEACH LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Oakwood Beach WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Oakwood Beach biosolids generated each month.

During this reporting period, Oakwood Beach biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, Oakwood Beach biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. OAKWOOD BEACH BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE OAKWOOD BEACH WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE OAKWOOD BEACH DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

During this reporting period no dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

B. EPIC-Landfill under Contract 1425-BIO

Approximately 258.49 dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

C. Action Carting, under contract 1280-BIO

Approximately 1,491.00 dry metric tons of the biosolids mix were distributed to **Action Carting** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

D. Action Carting 2 under Contract 1333-BIO

Approximately 7,472.31 dry metric tons of the biosolids mix were distributed to **Action Carting 2** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

E. EPIC-Landfill under Contract 1369-BIO

Approximately 489.66 dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

F. We Care Organics under Contract 1236-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Oakwood Beach dewatering facility.

G. We Care Organics under Contract 1308-BIO

Approximately **438.52** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Oakwood Beach dewatering facility during this reporting period.

Table 2 in the introduction Section contains requisite information specific to each of the seven sludge management contractors.

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

Table 3
Monthly Liquid Sludge Production
Oakwood Beach WWTP

Month	Liquid Sludge Production (DMT)*
January-15	190
February-15	181
March-15	191
April-15	219
May-15	210
June-15	220
July-15	226
August-15	245
September-15	242
October-15	213
November-15	207
December-15	260
TOTALS	2,604

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Oakwood Beach WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Oakwood Beach Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15			630.09		10.34			640.43
Feb-15			489.27		129.35		191.22	809.83
Mar-15			371.65	374.27	110.84		164.27	1,021.02
Apr-15				979.81	23.26		83.04	1,086.11
May-15				798.85	4.99			803.84
Jun-15				912.67	15.68			928.35
Jul-15				878.78	5.06			883.84
Aug-15				925.72	143.64			1,069.35
Sep-15		63.69		592.06	46.50			702.25
Oct-15		22.50		669.98				692.48
Nov-15		65.55		702.87				768.43
Dec-15		106.75		637.33				744.08
TOTALS	0.00	258.49	1,491.00	7,472.34	489.66	0.00	438.52	10,150.02

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Oakwood Beach WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0349	0.0015	0.0290	0.2410	4.88	0.59	0.0084	<LOD	0.5780	0.0259	9.6
February-15	0.0647	0.0019	0.0348	0.3340	6.79	0.85	0.0081	0.0523	0.6380	0.0427	10.2
March-15	0.0684	0.0020	0.0581	0.3750	7.88	0.91	0.0106	0.0329	0.7400	0.0375	11.5
April-15	0.0688	0.0021	0.0625	0.3420	6.76	0.84	0.0093	0.0442	0.6660	0.0569	10.2
May-15	0.0788	0.0053	0.0133	0.2870	6.07	0.88	0.0083	0.1420	0.3090	0.0403	8.5
June-15	0.1040	0.0031	0.0496	0.5930	6.18	1.53	0.0134	0.1880	0.7220	0.0604	11.0
July-15	0.0883	0.0027	0.0431	0.5700	5.24	1.49	0.0140	0.1330	0.6980	0.0598	11.2
August-15	0.0824	0.0028	0.0351	0.4960	6.01	1.30	0.0102	0.1540	0.6130	0.0665	12.0
September-15	0.0682	0.0024	0.0439	0.3620	4.82	0.95	0.0163	0.1860	0.4800	0.0544	10.8
October-15	0.0574	0.0022	0.0278	0.3440	4.71	0.94	0.0085	0.1190	0.4650	0.0517	9.2
November-15	0.0692	0.0024	0.0311	0.3690	5.04	1.02	0.0150	0.1180	0.4440	0.0632	9.8
December-15	0.0622	0.0027	0.0316	0.3290	14.30	0.93	0.0084	0.0730	0.5150	0.0634	9.8

Table 5B
Monthly Metals Concentrations for Biosolids
Oakwood Beach Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	3.38	3.58	36.1	477	131	1.1	7.9	34.1	3.6	920
February-15	4.22	3.28	31.7	455	87	1.0	8.0	29.0	3.5	719
March-15	5.55	4.47	35.7	446	103	0.9	6.1	38.5	2.9	770
April-15	4.47	4.85	36.0	524	115	1.3	8.9	30.5	4.4	814
May-15	4.05	1.42	23.1	492	94	1.2	13.3	31.6	3.6	843
June-15	4.06	4.23	33.0	458	103	1.1	7.5	39.5	3.8	812
July-15	3.06	4.16	35.9	488	119	1.8	9.8	37.4	4.0	1020
August-15	3.87	3.74	45.9	510	117	1.7	13.8	36.8	6.9	1040
September-15	3.73	3.20	35.3	493	94	1.1	13.3	38.1	4.8	900
October-15	2.37	3.63	36.0	514	94	1.9	8.4	36.8	5.0	912
November-15	3.73	3.64	29.3	522	96	1.5	9.3	33.2	6.2	898
December-15	4.24	4.51	34.6	471	89	1.1	10.0	45.9	5.8	844

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**OWLS HEAD
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
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SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



February 2016

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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Owls Head WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Owls Head Wastewater Treatment Plant	6700 Shore Road Brooklyn, NY 11220	No	NY0026166	Superintendent Andrew Kittel (718) 748-3177	Lewis Duvalsaint

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Owls Head Wastewater Treatment Plant	6700 Shore Road Brooklyn, NY 11220	Title V	261020000500017	Federal

I. OWLS HEAD LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **7,942** dry metric tons of Owls Head liquid sludge were generated. The sludge was dewatered at the 26th Ward, Bowery Bay, Hunts Point, Wards Island, Oakwood Beach (transported by force main from Port Richmond) and PVSC dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. OWLS HEAD LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Owls Head WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Owls Head sludge generated each month.

III. OWLS HEAD BIOSOLIDS ALLOCATIONS – N/A

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Owls Head WWTP

Month	Liquid Sludge Production (DMT)*
January-15	347
February-15	647
March-15	702
April-15	640
May-15	679
June-15	821
July-15	790
August-15	658
September-15	635
October-15	621
November-15	645
December-15	757
TOTALS	7,942

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Owls Head WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Port Richmond (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15			174.00					86.00	63.00	323.00
Feb-15		17.00	208.00					199.00	107.00	531.00
Mar-15			53.00					242.00	137.00	432.00
Apr-15		18.00	109.00					150.00	219.00	496.00
May-15	54.00	34.00	89.00					143.00	190.00	510.00
Jun-15	22.00		204.00					76.00	222.00	524.00
Jul-15	62.00	44.00	191.00					54.00	177.00	528.00
Aug-15	53.00	37.00	161.00					45.00	149.00	445.00
Sep-15	56.00	40.00	173.00					48.00	160.00	477.00
Oct-15			130.00					69.00	170.00	369.00
Nov-15		20.00	40.00					53.00	103.00	222.00
Dec-15		20.00	34.00					158.00	69.00	281.00
TOTALS	253.00	230.00	1,566.00	0.00	0.00	0.00	0.00	1,323.00	1,766.00	5,138.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Owls Head WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0767	0.0029	0.0854	0.7830	10.20	2.66	0.0364	0.2130	0.4650	0.0725	16.3
February-15	0.0881	0.0030	0.1060	0.8330	12.60	2.74	0.0288	0.2270	0.4220	0.0813	18.6
March-15	0.1090	0.0033	0.2310	1.0100	13.30	3.14	0.0297	0.2340	0.4330	0.0681	20.9
April-15	0.1560	0.0045	0.2470	1.0800	14.30	3.44	0.0347	0.3000	0.5920	0.1100	22.3
May-15	0.0683	0.0039	0.0177	0.2460	6.81	1.46	0.0178	0.1080	0.1710	0.0741	11.1
June-15	0.0656	0.0022	0.0601	0.4150	8.39	2.05	0.0292	0.1010	0.2650	0.0901	13.5
July-15	0.0510	0.0021	0.0592	0.4260	7.09	2.12	0.0251	0.0799	0.2680	0.0789	15.0
August-15	0.0716	0.0025	0.0601	0.5080	10.10	2.46	0.0243	0.1410	0.3180	0.1120	18.0
September-15	0.0624	0.0025	0.0864	0.3820	9.98	1.96	0.0201	0.1810	0.2820	0.1080	17.4
October-15	0.0422	0.0017	0.0451	0.3300	7.73	1.71	0.0206	0.1050	0.2210	0.0863	13.1
November-15	0.0597	0.0019	0.0487	0.3480	8.15	1.79	0.0172	0.0973	0.2640	0.0922	12.9
December-15	0.0536	0.0017	0.0563	0.3340	7.61	1.56	0.0144	0.0780	0.2580	0.1020	13.6

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**PORT RICHMOND
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



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- Appendix A - Table 3, Monthly Liquid Sludge Production
Table 4A, Monthly Liquid Sludge Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Port Richmond WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Port Richmond Wastewater Treatment Plant	1801 Richmond Terrace Staten Island, NY 10310	No	NY0026107	Superintendent William Schroder (718) 447-1100	Debra Padmore

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Port Richmond Wastewater Treatment Plant	1801 Richmond Terrace Staten Island, NY 10310	Registration	264010001202000	State

I. PORT RICHMOND LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **3,275** dry metric tons of Port Richmond liquid sludge were generated. The sludge was dewatered at the Oakwood Beach (transported by force main), Hunts Point, and Wards Island. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. PORT RICHMOND LIQUID SLUDGE QUALITY

B. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Port Richmond WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Port Richmond sludge generated each month.

III. PORT RICHMOND BIOSOLIDS ALLOCATIONS – N/A

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Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Port Richmond WWTP

Month	Liquid Sludge Production (DMT)*
January-15	287
February-15	259
March-15	341
April-15	257
May-15	241
June-15	342
July-15	245
August-15	310
September-15	265
October-15	225
November-15	266
December-15	236
TOTALS	3,275

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Port Richmond WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15					328.00					328.00
Feb-15					259.00					259.00
Mar-15					381.00					381.00
Apr-15					364.00					364.00
May-15					400.00					400.00
Jun-15					711.00					711.00
Jul-15					278.00					278.00
Aug-15					354.00					354.00
Sep-15					303.00					303.00
Oct-15					400.00					400.00
Nov-15					495.00					495.00
Dec-15					327.00					327.00
TOTALS	0.00	0.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	4,600.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Port Richmond WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0576	0.0020	0.0229	0.2990	3.05	0.84	0.0072	0.0807	0.4200	0.0336	7.7
February-15	0.0880	0.0021	0.0313	0.3530	5.13	0.92	0.0064	0.0817	0.4940	0.0398	8.8
March-15	0.1350	0.0021	0.0429	0.3990	4.32	1.05	0.0057	0.0766	0.4450	0.0327	8.7
April-15	0.1300	0.0027	0.0399	0.3840	3.87	0.92	0.0071	0.0668	0.4290	0.0460	7.5
May-15	0.0778	0.0066	0.0307	0.4200	9.62	3.66	0.0461	0.1020	0.2920	0.0669	24.3
June-15	0.0620	0.0023	0.0507	0.4050	8.33	2.70	0.0177	0.0712	0.2960	0.0691	17.9
July-15	0.0600	0.0027	0.0643	0.5400	9.03	3.79	0.0287	0.0752	0.3900	0.0819	34.3
August-15	0.0525	0.0022	0.0362	0.3580	6.89	2.33	0.0143	0.0698	0.2840	0.0600	14.2
September-15	0.0481	0.0022	0.0644	0.3480	8.12	2.46	0.0522	0.0995	0.2700	0.0642	16.4
October-15	0.0364	0.0019	0.0355	0.3110	7.08	2.51	0.0271	0.0523	0.2350	0.0524	12.8
November-15	0.0422	0.0020	0.0399	0.3510	7.50	2.28	0.0296	0.0515	0.2490	0.0584	13.3
December-15	0.0534	0.0034	0.0465	0.3050	8.78	2.52	0.0283	0.0497	0.2870	0.0583	14.9

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**RED HOOK
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
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SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



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Requisite information, specific to the Red Hook WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Red Hook Wastewater Treatment Plant	63 Flushing Ave., Unit 101 Brooklyn, NY 11205	Yes	NY0027073	Superintendent Mahendra Patel (718) 935-1597	Angel Guaraca

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Red Hook Wastewater Treatment Plant	63 Flushing Ave., Unit 101 Brooklyn, NY 11205	Registration	261010002302000	State

I. RED HOOK DEWATERED SLUDGE QUANTITIES

A. DEWATERING FACILITY ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Red Hook was dewatered at the Red Hook sludge dewatering facility. Approximately **3,855** dry metric tons of Red Hook sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. RED HOOK LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Red Hook WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Red Hook biosolids generated each month.

During this reporting period, Red Hook biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, Red Hook biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. RED HOOK BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE RED HOOK WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE RED HOOK DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

During this reporting period no dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Red Hook dewatering facility.

B. EPIC-Landfill under Contract 1369-BIO

During this reporting period no dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Red Hook dewatering facility.

C. Action Carting- 1280-BIO

During this reporting period no dry metric tons of the biosolids mix from the Red Hook dewatering facility was distributed to **Action Carting** (see introduction for processing details).

D. Action Carting 2 under Contract 1333-BIO

During this reporting period no dry metric tons of the biosolids mix were distributed to **Action Carting 2** (see introduction for processing details) from the Red Hook dewatering facility.

E. EPIC-Landfill under Contract 1369-BIO

Approximately 1,627.36 dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Red Hook dewatering facility during this reporting period.

F. We Care Organics under Contract 1236-BIO

Approximately **268.00** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Red Hook dewatering facility during this reporting period.

G. We Care Organics under Contract 1308-BIO

Approximately **480.76** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Red Hook dewatering facility.

Table 2 in the Introduction Section contains requisite information specific to each of the seven sludge management contractors.

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Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors

Table 3
Monthly Liquid Sludge Production
Red Hook WWTP

Month	Liquid Sludge Production (DMT)*
January-15	260
February-15	222
March-15	294
April-15	286
May-15	320
June-15	355
July-15	373
August-15	428
September-15	343
October-15	380
November-15	263
December-15	332
TOTALS	3,855

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT)

Table 4A
Monthly Liquid Sludge Allocations
Red Hook WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Red Hook Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15					7.52		145.20	152.72
Feb-15					87.46	3.72	75.42	166.60
Mar-15					45.35		132.82	178.17
Apr-15					160.46		127.32	287.78
May-15					4.01	206.98		210.99
Jun-15					161.43	57.30		218.74
Jul-15					212.86			212.86
Aug-15					160.38			160.38
Sep-15					191.65			191.65
Oct-15					252.79			252.79
Nov-15					136.04			136.04
Dec-15					207.40			207.40
TOTALS	0.00	0.00	0.00	0.00	1,627.36	268.00	480.76	2,376.12

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Red Hook WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0790	0.0022	0.0302	0.3610	6.24	1.32	0.0118	0.0596	0.2700	0.0603	9.5
February-15	0.0754	0.0015	0.0269	0.2820	5.51	0.96	0.0087	0.0427	0.2200	0.0398	7.5
March-15	0.0983	0.0019	0.0451	0.3370	5.83	1.15	0.0116	0.0323	0.2720	0.0367	8.9
April-15	0.1180	0.0023	0.0537	0.3940	7.60	1.36	0.0159	0.0561	0.4190	0.0559	9.9
May-15	0.0545	0.0028	0.0093	0.1780	3.86	0.73	0.0090	0.0520	0.1580	0.0301	6.1
June-15	0.0853	0.0031	0.0618	0.6370	8.93	2.08	0.0230	0.0796	0.5510	0.0616	13.4
July-15	0.0800	0.0027	0.0526	0.5630	7.06	1.98	0.0261	0.0607	0.3950	0.0624	13.8
August-15	0.0793	0.0028	0.0408	0.5240	7.82	1.79	0.0236	0.0804	0.3260	0.0720	13.8
September-15	0.0682	0.0021	0.0579	0.4480	7.94	1.54	0.0110	0.1140	0.2890	0.0675	14.4
October-15	0.0570	0.0020	0.0376	0.4120	7.80	1.53	0.0222	0.0748	0.2880	0.0698	12.5
November-15	0.0618	0.0020	0.0343	0.3620	7.38	1.34	0.0145	0.0547	0.3290	0.0640	10.2
December-15	0.0685	0.0023	0.0413	0.3680	7.16	1.34	0.0126	0.0520	0.3100	0.0784	11.2

Table 5B
Monthly Metals Concentrations for Biosolids
Red Hook Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	5.34	5.68	41.6	707	176	2.9	9.3	22.5	5.2	1064
February-15	6.03	5.72	40.9	725	156	1.4	9.2	20.5	4.3	942
March-15	7.21	5.90	40.1	684	152	1.1	7.9	20.2	3.7	965
April-15	7.00	6.20	37.2	667	147	1.8	9.5	20.1	4.6	917
May-15	6.67	4.81	31.8	688	169	1.5	14.9	22.6	4.4	1045
June-15	5.61	7.18	49.8	692	201	1.7	12.6	23.6	4.4	1040
July-15	4.31	8.15	56.3	701	223	1.8	15.5	24.6	4.4	1180
August-15	5.11	7.01	58.0	764	220	1.9	23.7	26.3	7.3	1250
September-15	3.67	6.30	47.1	725	171	1.5	18.0	20.0	5.0	1100
October-15	2.81	6.52	52.1	756	168	2.7	19.3	22.9	4.2	1046
November-15	4.08	6.11	49.4	735	156	1.6	24.0	21.6	5.9	978
December-15	4.78	5.52	43.5	719	130	0.9	16.8	18.2	6.5	911

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**ROCKAWAY
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
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(718) 595-5056



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Table 4A, Monthly Liquid Sludge Allocations
- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge

Requisite information, specific to the Rockaway WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Rockaway Wastewater Treatment Plant	106-21 Beach Channel Drive Rockaway, NY 11235	No	NY0026221	Superintendent Nitin Patel (718) 474-3663	Johnathan Don

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Rockaway Wastewater Treatment Plant	106-21 Beach Channel Drive Rockaway, NY 11235	Registration	263090000302000	State

I. ROCKAWAY LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **695.00** dry metric tons of Rockaway liquid sludge were generated. The sludge was dewatered at the 26th Ward, Hunts Point, Wards Island and Oakwood Beach (transported by force main from Port Richmond), dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. ROCKAWAY LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Rockaway WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Rockaway sludge generated each month.

III. ROCKAWAY BIOSOLIDS ALLOCATIONS – N/A

APPENDICES

APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Rockaway WWTP

Month	Liquid Sludge Production (DMT)*
January-15	65
February-15	66
March-15	61
April-15	64
May-15	37
June-15	53
July-15	90
August-15	64
September-15	43
October-15	71
November-15	41
December-15	39
TOTALS	695

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT)

Table 4A
Monthly Liquid Sludge Allocations
Rockaway WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15								17.00		17.00
Feb-15	39.00									39.00
Mar-15	37.00		18.00							55.00
Apr-15	72.00									72.00
May-15	58.00									58.00
Jun-15	29.00							6.00		35.00
Jul-15	50.00									50.00
Aug-15	34.00									34.00
Sep-15	26.00									26.00
Oct-15	13.00	15.00						15.00		43.00
Nov-15	14.00	9.00								23.00
Dec-15	22.00							7.00		29.00
TOTALS	394.00	24.00	18.00	0.00	0.00	0.00	0.00	45.00	0.00	481.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Rockaway WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0831	0.0029	0.0407	0.3440	7.43	1.65	0.0154	0.0449	0.2240	0.0473	11.0
February-15	0.0760	0.0025	0.0375	0.3500	7.69	1.38	0.0097	0.0378	0.2380	0.0414	9.0
March-15	0.0675	0.0019	0.0346	0.2800	6.91	0.94	0.0063	0.0285	0.1840	0.0322	6.7
April-15	0.0890	0.0026	0.0471	0.3280	12.50	1.15	0.0111	0.0445	0.2310	0.0615	7.8
May-15	0.0210	0.0028	0.0041	0.0678	1.74	0.49	0.0038	0.0196	0.0830	0.0129	3.3
June-15	0.0445	0.0015	0.0238	0.2120	4.37	1.35	0.0129	0.0213	0.1620	0.0315	7.3
July-15	0.0380	0.0012	0.0207	0.2320	3.55	1.34	0.0133	0.0151	0.1700	0.0345	7.6
August-15	0.0250	0.0006	0.0086	0.0948	1.80	0.54	0.0024	<0.00309	0.0963	0.0203	3.6
September-15	0.0349	0.0012	0.0326	0.1910	4.52	1.27	0.0081	0.0584	0.1820	0.0379	9.2
October-15	0.0307	0.0010	0.0172	0.1570	3.47	0.97	0.0138	0.0224	0.1630	0.0362	6.8
November-15	0.0198	0.0005	0.0108	0.1610	2.17	0.61	0.0070	<0.00309	0.1400	0.0189	3.8
December-15	0.0244	0.0009	0.0133	0.1100	2.76	0.60	0.0053	<0.00309	0.1030	0.0310	4.8

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**TALLMAN ISLAND
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection
Bureau of Wastewater Treatment
SPDES Compliance Section
96-05 Horace Harding Expressway
Corona, New York 11368
(718) 595-5056



February 2016

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Requisite information, specific to the Tallman Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Tallman Island Wastewater Treatment Plant	127-01 Powell Cove Blvd College Point., NY 11356	Yes	NY006239	Superintendent Mohammed Zaman (718) 353-5124	Carmelo Giorlandino

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Tallman Island Wastewater Treatment Plant	127-01 Powell Cove Blvd College Point., NY 11356	Title V	263020001200013	Federal

I. TALLMAN ISLAND LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 approximately **8,508** dry metric tons of Tallman Island liquid sludge were generated. The sludge was dewatered at the Bowery Bay, Hunts Point, Wards Island Oakwood Beach (transported by force main from Port Richmond) and PVC, dewatering facilities. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II. TALLMAN ISLAND LIQUID SLUDGE QUALITY

A. METALS ANALYSES

Table 5A of Appendix B summarizes the average monthly metals concentrations for the liquid sludge generated at the Tallman Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Tallman Island sludge generated each month.

III. TALLMAN ISLAND BIOSOLIDS ALLOCATIONS – N/A

NOTE: The Tallman Island Dewatering Facility has been shut down for the reporting period of January 1 through December 31, 2015 due to treatment plant upgrade construction.

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APPENDIX - A

Table 3.....	Monthly Liquid Sludge Allocation
Table 4A.....	Monthly Liquid Sludge Allocations to Contractors
Table 4B.....	Monthly Biosolids Allocations to Contractors (N/A)

Table 3
Monthly Liquid Sludge Production
Tallman Island WWTP

Month	Liquid Sludge Production (DMT)*
January-15	673
February-15	622
March-15	717
April-15	772
May-15	657
June-15	851
July-15	657
August-15	751
September-15	618
October-15	644
November-15	792
December-15	757
TOTALS	8,508

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Tallman Island WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15		31.00	355.00					150.00		536.00
Feb-15			525.00					82.00		607.00
Mar-15		54.00	433.00					175.00		662.00
Apr-15		0.00	478.00					238.00		716.00
May-15		45.00	357.00					110.00		512.00
Jun-15		48.00	583.00					139.00		770.00
Jul-15		72.00	430.00					145.00		647.00
Aug-15		51.00	305.00					103.00		459.00
Sep-15		72.00	455.00					77.00		604.00
Oct-15		64.00	404.00					64.00		532.00
Nov-15		87.00	362.00					52.00		501.00
Dec-15			364.00					116.00		480.00
TOTALS	0.00	524.00	5,051.00	0.00	0.00	0.00	0.00	1,451.00	0.00	7,026.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Tallman Island Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15								0.00
Feb-15								0.00
Mar-15								0.00
Apr-15								0.00
May-15								0.00
Jun-15								0.00
Jul-15								0.00
Aug-15								0.00
Sep-15								0.00
Oct-15								0.00
Nov-15								0.00
Dec-15								0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00		0.00

Notes:

*Biosolids allocation is expressed in dry metric tons
Tallman Island Dewatering Facility was shut down in July 2009.

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids (N/A)

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Tallman Island WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0517	0.0017	0.0354	0.2760	6.35	1.58	0.0151	0.0806	0.2290	0.0693	11.2
February-15	0.0511	0.0014	0.0360	0.2740	6.20	1.25	0.0149	0.0524	0.2120	0.0603	9.9
March-15	0.0536	0.0013	0.0421	0.2470	5.07	1.24	0.0099	0.0332	0.1820	0.0364	9.1
April-15	0.0644	0.0016	0.0489	0.2680	5.68	1.39	0.0200	0.0524	0.2000	0.0594	10.1
May-15	0.0890	0.0054	0.0505	0.3950	8.98	1.96	0.0178	0.1620	0.2200	0.0609	12.8
June-15	0.0923	0.0046	0.1130	0.7810	18.90	3.27	0.0197	0.1900	0.4310	0.0692	16.0
July-15	0.0689	0.0038	0.0898	0.6860	8.84	2.74	0.0202	0.1820	0.3420	0.0612	15.1
August-15	0.0613	0.0029	0.0596	0.4850	8.35	2.03	0.0164	0.2140	0.2740	0.0618	12.2
September-15	0.0493	0.0026	0.0747	0.4030	12.10	1.54	0.0137	0.1890	0.2930	0.0525	12.6
October-15	0.0382	0.0023	0.0477	0.3670	8.24	1.35	0.0124	0.1660	0.2520	0.0451	9.8
November-15	0.0532	0.0026	0.0537	0.4170	8.02	1.43	0.0179	0.2010	0.2510	0.0571	10.1
December-15	0.0721	0.0041	0.0710	0.5180	10.50	1.75	0.0112	0.2540	0.2740	0.0816	13.3

Table 5B
Monthly Metals Concentrations for Biosolids
Tallman Island Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15										
February-15										
March-15										
April-15										
May-15										
June-15										
July-15										
August-15										
September-15										
October-15										
November-15										
December-15										

Tallman Island Dewatering Shut Down

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

**WARDS ISLAND
WASTEWATER TREATMENT PLANT**

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

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(718) 595-5056



February 2016

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- Appendix B - Table 5A, Monthly Average Metals Data for Liquid Sludge
Table 5B, Monthly Average Metals Data for Biosolids

Requisite information, specific to the Wards Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Yes	NY0026131	Superintendent John McCabe (212) 860-9351	Yu-Tung Chan

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Air State Facility Permit	262030000500049	State

I. WARDS ISLAND LIQUID SLUDGE QUANTITIES

A. LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE ALLOCATIONS

For the reporting period of January 1 through December 31, 2015 all anaerobically digested, thickened sewage sludge generated at Wards Island was dewatered at the Wards Island sludge dewatering facility. Approximately **24,437** dry metric tons of Wards Island sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II WARDS ISLAND LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. METALS ANALYSES

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Wards Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of all samples of Wards Island biosolids generated each month.

During this reporting period, Wards Island biosolids contained concentrations of metals that always met the **Ceiling Concentration Limits** for twelve (12) months as listed in *Table 1 of 40 CFR Part 503.13(b)(1)*. Further, during twelve (12) months in 2015, Wards Island biosolids contained concentrations of metals that met the **Pollutant Concentration Limits** as listed in *Table 3 of 40 CFR Part 503.13(b)(1)*.

III. WARDS ISLAND BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE WARDS ISLAND WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE WARDS ISLAND DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 1419-TDR

Approximately **17,309.73** dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

B. EPIC-Landfill under Contract 1425-BIO

Approximately **3,694.77** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

C. Action Carting Contract 1280-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **Action Carting** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

D. Action Carting 2 under Contract 1333-BIO

Approximately **5,187.58** dry metric tons of the biosolids mix from the Wards Island dewatering facility was distributed to **Action Carting 2** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

E. EPIC-Landfill under Contract 1369-BIO

Approximately **446.64** dry metric tons of the biosolids mix were distributed to **EPIC-Landfill** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

F. We Care Organics under Contract 1236-BIO

During this reporting period **no** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Wards Island dewatering facility.

G. We Care Organics under Contract 1308-BIO

Approximately **6.30** dry metric tons of the biosolids mix were distributed to **We Care Organics** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

Table 2 in the introduction contains requisite information specific to each of the seven sludge management contractors.

APPENDICES

Table 3
Monthly Liquid Sludge Production
Wards Island WWTP

Month	Liquid Sludge Production (DMT)*
January-15	1,870
February-15	1,809
March-15	2,397
April-15	2,335
May-15	2,325
June-15	2,044
July-15	1,963
August-15	1,777
September-15	1,969
October-15	2,135
November-15	1,911
December-15	1,903
TOTALS	24,437

Notes:

* Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A
Monthly Liquid Sludge Allocations
Wards Island WWTP

Month	26th Ward (DMT)*	Bowery Bay (DMT)*	Hunts Point (DMT)*	Jamaica (DMT)*	Oakwood Beach (DMT)*	Red Hook (DMT)*	North River (DMT)*	Wards Island (DMT)*	PVSC (DMT)*	TOTALS (DMT)*
Jan-15										0.00
Feb-15										0.00
Mar-15										0.00
Apr-15										0.00
May-15										0.00
Jun-15										0.00
Jul-15										0.00
Aug-15										0.00
Sep-15										0.00
Oct-15										0.00
Nov-15										0.00
Dec-15										0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B
Monthly Biosolids Allocations to Contractors
Wards Island Dewatering Facility

Month								TOTALS (DMT)*
	TDR Contract 1419-TDR (DMT)*	EPIC (Landfill) Contract 1425-Bio (DMT)*	Action Carting Contract 1280-BIO (DMT)*	Action Carting 2 Contract 1333-BIO (DMT)*	EPIC (Landfill) Contract 1369-BIO (DMT)*	We Care Organics Contract 1236-BIO (DMT)*	We Care Organics Contract 1308-BIO (DMT)*	
Jan-15				2387.95	244.85			2,632.80
Feb-15				2001.43	120.36			2,121.80
Mar-15	2024.45			792.95	81.43		6.30	2,905.13
Apr-15	2838.93							2,838.93
May-15	2565.62							2,565.62
Jun-15	2988.51							2,988.51
Jul-15	1626.66							1,626.66
Aug-15	1756.12							1,756.12
Sep-15	1904.83							1,904.83
Oct-15	1006.27	377.01		5.25				1,388.53
Nov-15	331.53	1678.90						2,010.44
Dec-15	266.78	1638.86						1,905.64
TOTALS	17,309.73	3,694.77	0.00	5,187.58	446.64	0.00	6.30	26,645.02

Notes:

*Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A.....Monthly Average Metals Data for Liquid
Sludge

Table 5B.....Monthly Average Metals Data for
Biosolids

Table 5B
Monthly Metals Concentrations for Biosolids
Wards Island Dewatering Facility

Month	METALS									
	Arsenic mg/Kg	Cadmium mg/Kg	Chromium mg/Kg	Copper mg/Kg	Lead mg/Kg	Mercury mg/Kg	Molybdenum mg/Kg	Nickel mg/Kg	Selenium mg/Kg	Zinc mg/Kg
January-15	2.53	3.01	41.2	549	128	1.4	4.4	28.0	4.3	951
February-15	3.03	3.20	36.0	500	96	1.1	5.3	18.7	4.2	738
March-15	4.78	4.28	37.0	520	125	0.9	4.2	22.0	3.3	855
April-15	3.60	3.98	33.5	477	114	1.1	4.3	20.0	3.8	757
May-15	2.71	1.43	24.3	502	99	1.0	7.7	20.4	4.4	843
June-15	2.92	3.40	33.7	469	121	0.8	5.9	21.2	4.1	803
July-15	2.16	4.30	46.4	511	142	1.2	6.8	25.2	4.3	965
August-15	2.72	4.02	53.5	596	152	1.2	9.8	28.4	7.1	1140
September-15	2.45	3.39	43.0	587	131	1.2	9.2	40.7	5.2	993
October-15	1.64	3.42	40.1	568	126	1.0	7.1	25.7	4.7	925
November-15	2.55	3.36	36.4	566	121	1.3	6.7	21.8	6.7	879
December-15	3.39	3.04	35.4	533	116	2.4	7.7	21.8	6.8	809

Table 5A
Monthly Metals Concentrations for Liquid Sludge
Wards Island WWTP

Month	METALS										
	Arsenic mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Copper mg/L	Lead mg/L	Mercury mg/L	Molybdenum mg/L	Nickel mg/L	Selenium mg/L	Zinc mg/L
January-15	0.0518	0.0026	0.0434	0.4310	8.59	1.89	0.0167	0.0672	0.2680	0.0498	12.3
February-15	0.0491	0.0022	0.0458	0.4320	9.39	1.64	0.0165	0.0704	0.2520	0.0497	12.2
March-15	0.0581	0.0029	0.0724	0.4910	10.20	1.99	0.0147	0.0724	0.3290	* 0.0517	14.9
April-15	0.0672	0.0030	0.0772	0.5180	14.20	2.87	0.0367	0.1000	0.4190	0.0725	14.4
May-15	0.0597	0.0045	0.0273	0.3900	11.50	2.15	0.0300	0.1280	0.2350	0.0639	13.3
June-15	0.0562	0.0031	0.0749	0.5970	11.00	2.82	0.0310	0.1560	0.3500	0.0764	16.4
July-15	0.0500	0.0029	0.0567	0.5600	11.90	2.70	0.0726	0.1450	0.3400	0.0709	14.5
August-15	0.0531	0.0030	0.0435	0.5060	10.30	2.93	0.0269	0.1440	0.3260	0.0723	14.7
September-15	0.0449	0.0023	0.0598	0.3970	11.40	2.15	0.0247	0.1930	0.2870	0.0670	13.9
October-15	0.0414	0.0023	0.0476	0.4320	12.50	2.18	0.0202	0.1520	0.2780	0.0666	13.2
November-15	0.0491	0.0025	0.0398	0.3420	10.40	2.29	0.0233	0.1350	0.2380	0.0671	11.0
December-15	0.0556	0.0028	0.0514	0.3640	13.30	1.90	0.0187	0.1190	0.2900	0.0788	12.7

**City of New York
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Wastewater Treatment**

CONTRACTORS' ISSUES

US EPA 40 CFR Part 503
Use or Disposal of Sewage Sludge
2015 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

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Bureau of Wastewater Treatment
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February 2016

CONTRACTORS' ISSUES

There were not issues with any of the contracts for the reporting period of January 1 through December 31, 2015.